DOCUMENT RESUME

ED 101 729 IR 001 581

AUTHOR Dunathan, Arni T.
TITLE Differential Effects of Narrator Sex on Male and Female Elementary School Subject's Perception of Movement in an Autokinetic Device.
PUB DATE Dec 74
NOTE 12p.; Paper presented at the Association for Educational Communications and Technology Annual Convention (Dallas, Texas, April 14-17, 1975)

EDRS PRICE MF-$0.76 HC-$1.58 PLUS POSTAGE
DESCRIPTORS *Credibility; Females; Information Sources; Instructional Materials; Males; *Material Development; Narration; *Sex (Characteristics); *Sex Differences; *Sex Discrimination; Sex Stereotypes; Teacher Developed Materials; Testing

ABSTRACT

The hypothesis that male voices are more credible than female voices as narrators of instructional materials was tested with 64 randomly selected elementary school students, half of them male and half female. Students were to observe a point of light in a darkened room, and afterwards to draw a line showing how much their line moved. Four identical sets of instructions were tape recorded by male and female instructors. Responses were scored by measuring length of line in 16ths of an inch. It was shown that female students responded significantly to male voices but that males did not respond significantly by sex, although there was a slight difference in response to females. (SK)

THE UNIVERSITY OF MISSOURI-COLUMBIA

DIFFERENTIAL EFFECTS OF NARRATOR SEX ON MALE AND FEMALE ELEMENTARY SCHOOL SUBJECT'S PERCEPTION OF MOVEMENT IN AN AUTOKINETIC DEVICE

BY

ARNI T. DUNATHAN
PROFESSOR

COLUMBIA, MISSOURI
DECEMBER 1974

DIFFERENTIAL EFFECTS OF NARRATOR SEX ON MALE AND FEMALE ELEMENTARY SCHOOL SUBJECT'S PERCEPTION OF MOVEMENT IN AN AUTOKINETIC DEVICE

Effects of Narrator Sex on Perception of Autokinetic Movement

Problem

The near universal and long standing preference for male voices as narrators of instructional materials does not appear to have a basis in the available research reviewed for his study. The question of effectiveness of male vs. female narrators as instructors, is moot and does not support directional hypotheses. A more basic question needs to be asked first: Are there differences in credibility of males and females as recorded sources of instruction?

A satisfactory answer to that question could support directional hypotheses which might later be tested concerning effectiveness of male/female narrators as instructors in real school tasks.

Hypothesis

1. There are no significant differences by sex of respondant, sex of narrator, or by direct or indirect suggestion tape treatments in S's reported perception of movement in an autokinetic device.

Design

Sex of respondent and sex of narrator were seen as the most basic independent variables. It seemed possible that the directness of narrators' instruction could differentially affect response; a third independent variable, direct or indirect suggestion, was added.

Perception of autokinetic movement was chosen as the most controllable measure of the dependent variable (credibility of source).*

The overall design was two (narrator sex) by two (sex of respondent) by two (direct or indirect suggestion). The dependent measure was length of a line drawn by the respondent to represent how far the light was perceived as moving under the treatment conditions.

Analysis was by three-way ANOVA overall. Analysis further profited when data were divided by sex of respondent and treated as two separate experiments to be analyzed by separate two-way ANOVA.

Subjects

64 Ss, 32 male and 32 female, were randomly selected from among upper elementary school pupils at the University of Missouri-Columbia Laboratory School. Excluded from the population were those pupils with visual or auditory deficiencies and those who reported a fear of the dark or of closed rooms. Ss were randomly assigned by sex to each of four treatments yielding eight Ss per cell in an eight cell design.

Experimental Task

S's task in all treatments was to observe a point of light in a darkened room and to, after room lights were turned on, draw a line showing how much the light moved.

Materials

1. Stimulus. The stimulus was a pinpoint of light located 5 meters from the subject. The light was hidden from S's view when the room lights

* Autokinetic effect is highly reliable. For an expanded description of the phenomenon, see Sherif (1947).

were on and revealed after the room was darkened. The light was then hidden again prior to turning on the room lights.

2. Intervention. Identical sets of instructions were tape recorded by trained male and female narrators. Recordings were timed to identical lengths.

Four tape recorded sets of instructions were used as intervention materials: (1) Indirect Suggestion/Female Narrator, (2) Indirect Suggestion/Male Narrator, (3) Direct Suggestion/Female Narrator, and (4) Direct Suggestion/Male Narrator.

Indirect Suggestion tapes greeted Ss and told them that in a moment the lights would go out and a small light would appear in front of them. Their task was to remember how much the light moved and, when the room lights went on, to draw a line on their response sheet to show how much the light moved.

Direct Suggestion tapes contained the added statement by the narrator that he/she had watched the light many times and had drawn a line on the S's sheet to show how much the light moved when the narrator looked at it.

3. Response materials. Response materials included a pencil, clipboard and a response sheet with a star in the center to represent the point of light on the wall opposite where Ss were seated.

For direct Suggestion treatments, a second sheet was provided with a line 16/16th inches long drawn up and to the left from the star. The taped narrator referred to this line as representing the amount the light had moved when he/she had looked at it.

Procedures

Ss reported to the experimental room in groups of four by assigned treatment. The room was windowless and had been specially sealed to allow total darkening. Ss were greeted by an experimenter of the same sex as the treatment tape and seated on backless stools in a semicircle 5 meters from the light source. Response materials were distributed and briefly explained. The treatment tape was played while the room remained light. The room was then darkened for the 20 seconds during which the pinpoint light appeared. Room lights were then turned on again and Ss marked their response

sheets taking care to shield their answers from the view of others. Answer sheets were collected and Ss returned to their normal school activities after being cautioned not to discuss the experience with others.

Responses were scored by measuring the length of the line in 16ths of an inch. Direction and shape of line were later recognized as being possible indicators of narrator credibility.

Results

Summary three-way ANOVA (Table 1) reveals narrator sex as the significant (.05) main effect.

A significant (.05) interaction effect between narrator sex and sex of respondent was also revealed.

When means are plotted by narrator sex and sex of respondent (Figure 1) the compounding effect is more clear. Female Ss response to male tapes was 66.75/16th inches vs. 19.62/16th inches for males responding to male tapes. Response to female tapes by females was 26.75/16th inches vs. 30.87/16th inches by males.

When data were divided by sex of respondent and analyzed by two-way ANOVA, the major factor contributing to the interaction is clearly identified. Summary of ANOVA for female respondents (Table 2) reveals highly significant (.01) main effects for narrator sex. Summary ANOVA for male respondents (Table 3) reveals no significant main effects or interactions.

Although several attempts were made post hoc to score line shape and line direction numerically and compare means, these data were uninterpretable.

Discussion

These data seem to clearly indicate that at least as far as elementary school Ss are concerned, male narrators constitute a more credible source for instruction of females. Male Ss do not respond differently to male or female narrators, although a small difference favors female narrators.

Overall, disregarding significance, it can be suggested that a counter alignment between sex of respondent and sex of narrator would facilitate performance of elementary school subjects.

This observation is made more interesting by the finding of Saluzzi et al. (1974) that college Ss aligned by sex with narrator: females responded more to female narrators and males responded more to male narrators. It may be that effects of narrator sex are a function of the age of the respondent.

The fact that direct vs. indirect suggestion by narrators of either sex did not make a significant difference in Ss perception of movement deserves some explanation. It is possible that the experimental situation regardless of treatment was powerfully novel and overwhelmed differences between direct and indirect suggestion; although the treatment difference between a positive statement supported by a visual example vs. no statement at all seemed to the investigator to be a strong one. It is also possible to explain the n.s.d. finding by reasoning that the difference between suggestion treatments was a difference in degree of suggestion, not a difference between no suggestion and some suggestion. A treatment in which no instructions were given the subject might prove significantly different from either of the two suggestion treatments in this study. A third possible explanation is that the magnitude of sex differences is such that it overrides other less obvious differences.

Conclusion

1. Sex of narrator is a predictor of differential responses to instructions by male and female elementary school subjects.

2. Female elementary school subjects respond significantly more vigorously to instruction by male narrators than by female narrators.

3. Female elementary school subjects respond significantly more vigorously to male narrators than do male elementary school subjects.

4. Male elementary school subjects do not respond differently to male or female narrators.

5. Female elementary school subjects do not respond differently to female narrators than do male Ss.

6. Neither male or female elementary school subjects respond differently to direct or indirect suggestion by narrators.

TABLE I

SUMMARY ANOVA

Source	Ss	df	MS	F
A Narrator Sex	18	1	1849	7.07 *
B Sex of Respondent	826.562	1	826.562	3.159
C Suggestion	39.062	1	39.062	1
A x B	2626.563	1	2626.563	10.04 *
A x C	588.063	1	588.063	2.248
B x C	100.001	1	100.01	1
A x B x C	56.249	1	56.249	1
S/ABC	14650.5	56	261.616	...
Total	20736.0	63	...	...

* exceeds critical value at .05

TABLE II

SUMMARY ANOVA FOR FEMALES

Source	Ss	df	MS	F
A Narrator Sex	4441.53	1	4441.53	13.28 *
B Suggestion	7.03	1	7.03	1
A x B	504.04	1	504.04	1.51
S/AB	9367.12	28	334.54	...
Total	14319.72	31	...	...

* exceeds critical value at .01

TABLE III

SUMMARY ANOVA FOR MALES

Source	Ss	df	MS	F
A Narrator Sex	34.03	1	34.03	1
B Suggestion	132.03	1	132.03	1
A x B	140.29	1	140.29	1
S/AB	5283.37	28	188.69	...
Total	5589.72	31	...	...

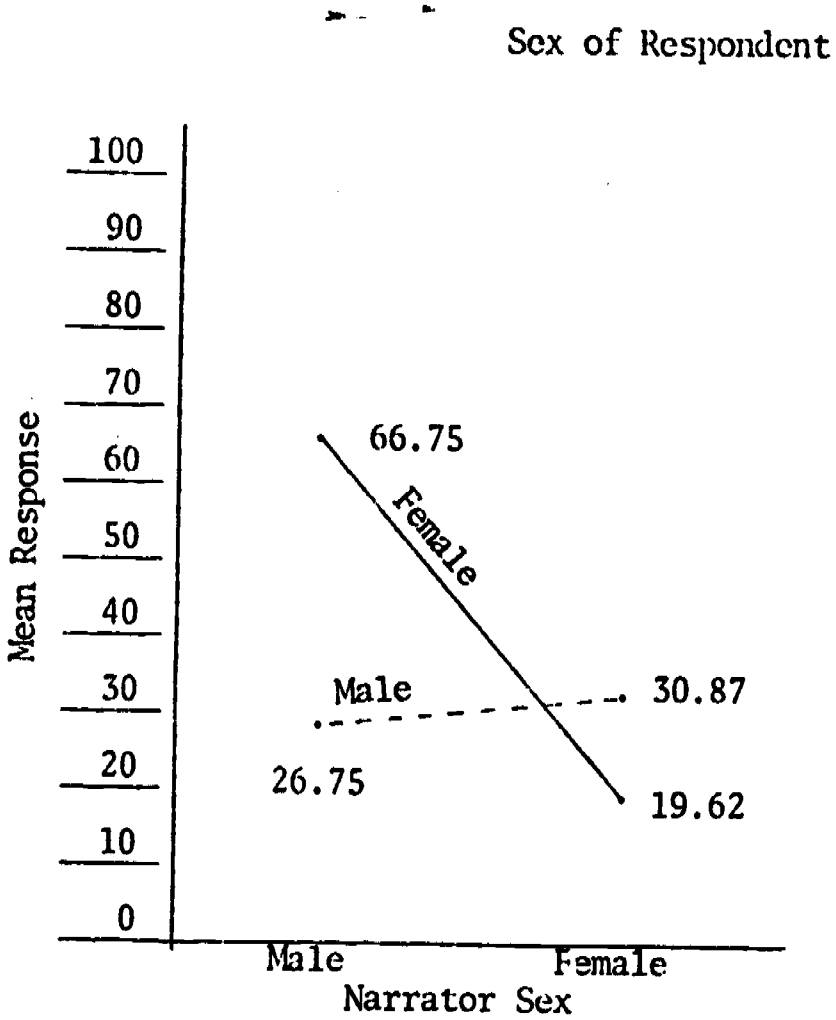

Figure 1. Means by Narrator Sex and Sex of Respondent

REFERENCES

Haviland, C. I. and Mondell, W. "An Experimenter Comparison of Conclusion-Drawing by the Communicator and by the Audience." Journal of Abnormal Social Psychology XLVII (1952):581-88.

Haviland, C. I. and Weiss, W. "The Influence of Source Credibility on Communication Effectiveness." Public Opinion Quarterly XV (1951): 635-50.

Horowitz, M. W. and Pastore, N. "Relationship of Motive to Author and Statement." Science CXXI (1955):110-11.

Kellman, Herbert C. "The Induction of Action and ATtitude Change." In Problems in Social Psychology, pp. 141-53. Edited by Carl W. Bockman and Paul F. Sanford. McGraw Hill, c1965.

Kellman, H. C. and Haviland, C. I. "Reinstatement of the Communicator in Delayed Measurement of Opinion Change." Journal of Abnormal Psychology XLVIII (1953):327-35.

Paulson, S. F. "The Effects of the Prestige of the Speaker and Acknowledgement of Opposing Arguments of Audience Retention and Shift of Opinion." Speech Monograph XXI (1954):267-71.

Saluzzi, Fisher, Fisher, Froese, and Dunathan, "Effect of Narrator's Sex on College Subject's Perception of Autokinetic Movement." University of Missouri-Columbia, 1974. (Xerox.)

Sherif, Muzafer. "Group Influence Upon the Formation of Norms and Attitudes." In Readings in Social Psychology, pp. 77-99. Edited by Theodore M. Newcomb and Eugene L. Hartley. Henry Holt and Co., c1947.

Schweitzer, Con and Ginsberg, Gerald. "Factors of Communicator Credibility." Problems in Social Psychology, pp.94-102. Edited by Carl W. Bockman and Paul F. Sanford. McGraw Hill, c1965.

Scott, William S. "Attitude Change by Response Reinforcement." Problems in Social Psychology, pp. 108-12. Edited by Carl W. Bockman and Paul F. Sanford. McGraw Hill, c1965.